Outfall 001

Discharge from WHTF at Dike 3

Source: This outfall continuously discharges condenser cooling water from the Waste Heat Treatment Facility (WHTF) to Lake Anna at Dike 3. The water is non-contact, once through cooling water withdrawn from Lake Anna. There are 12 internal outfalls that contribute to 001.

Treatment: The retention time in the WHTF is approximately 7.5 days giving the water time to cool.
Sampling Point: Dike 3.
Discharges To: Lake Anna
Discharge Volume: 2100 MGD (Average for 2002-2006).

Effluent Screening:
- Effluent data obtained from permit application Form 2C, Attachment A and 2002-2006 DMRs have been reviewed and determined to be suitable for evaluation.
- There have been no exceedances of the established limitations.
- Data reported in Form 2C was analyzed and no pollutants were found to be above the water quality criteria.
- Attachment 8 shows the Water Quality Criteria (WQC) and WLA analyses respectfully.

Pollutants of concern:

- Total Residual Chlorine (TRC): TRC is present from the STP discharge, Outfall 111. An evaluation of the 2002–2006 DMR effluent data shows Total Residual Chlorine to be below the limit.
- Metals: No metals were detected above the water quality criteria. Copper and Nickel were required under the previous permit to be monitored due to toxics data analysis. In Form 2C and Attachment A, Copper and Nickel were present in the effluent above the detection level, but were below the criteria. Copper and Nickel results, 2 ug/L and <5 ug/L respectively, were below the acute criteria of 3.6 ug/L and 56 ug/L, respectively and below the chronic criteria of 2.7 ug/L and 6.3 ug/L, respectively.

Effluent Limitations:

- pH: Water Quality Criteria states that it shall be a minimum value of 6.0 S.U. and a maximum value of 9.0 S.U. No change to pH limitations is proposed, and the pH range of 6.0 S.U. minimum and 9.0 S.U. monthly maximum is given at this outfall. The frequency is increased to 1/W.
- Temperature: Temperature is being added at a frequency of 1/W. The data will be used to better assess the actual temperature of the effluent monitoring at Dike 3.
- Flow at Outfall 001: Weekly flow estimates are required so as to record volume of discharge. The volume shall be estimated based on the height, width and velocity of the water flowing over dike 3.
- Total Residual Chlorine (TRC): The effluent limitations for TRC are based on the water quality criteria for TRC, 0.011 mg/l. This is more stringent than the Steam Electric Power Generating effluent guidelines. Federal Effluent requirements (40 CFR 423.13(b)(1)) state that once through cooling water discharges shall have a maximum TRC value of 0.2 mg/l. The previous permit contained the effluent guideline limit but staff now believes the water quality based limit is the more appropriate. In practice, since the limit is less than the QL for TRC, compliance shall be based on the QL level of 0.1 mg/l.
- Heat Rejection: Heat rejection requirements have been moved to internal outfall 101.

Effluent Limitations/Monitoring Requirements: Outfall 001

Effective Dates: During the period beginning with the permit's effective date and lasting until the expiration date, the permittee is authorized to discharge from Outfall 001 (Discharge from WHTF at Dike 3).

PARAMETER	BASIS FOR LIMITS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
		Monthly Average	Daily Maximum	Minimum	Maximum	Frequency	Sample Type
Flow (MGD)	N/A	NL	N/A	N/A	NL	1/W	Estimate
pH	3	N/A	N/A	6.0 S.U.	9.0 S.U.	1/W	Grab
Total Residual Chlorine (TRC)	3	0.011mg/l	0.011mg/l	N/A	N/A	1/M	Grab
Temperature (^{o}C)	N/A	NL	NL	N/A	N/A	1/W	IS
Chronic 3-Brood Static Renewal *C. dubia*	3	N/A	N/A	N/A	NL	1/Y	Grab
Chronic 7-Day Static Renewal *P. promelas*	3	N/A	N/A	N/A	NL	1/Y	Grab

The basis for the limitations codes are:	*MGD* =	Million gallons per day	*1/M* = Once every month
1. Federal Effluent Requirements	*N/A* =	Not applicable	*1/W* = Once week
2. Best Professional Judgment	*NL* =	No limit; monitor and report	*1/Y* = Once per year
3. Water Quality Standards	*S.U.* =	Standard units	*IS* = Immersion & Stabilizatior

Flow at Outfall 001 shall be estimated based on the height, width and velocity of the water flowing over Dike 3.

Special Conditions Specific to Outfall 001:

Permit Section Part I.C., details the requirements for Toxics Management Program.

The VPDES Permit Regulation at 9 VAC 25-31-210 requires monitoring and 9 VAC 25-31-220.I, requires limitations in the permit to provide for and assure compliance with all applicable requirements of the State Water Control Law and the Clean Water Act. Because of the large volume of discharge of Outfall 001 into Lake Anna, and the potential for contamination in the WHTF, a TMP is warranted. The frequency shall be once per year. Should the effluent be toxic, the permit may be reopened to include a WET limit or other requirements to address toxicity.

Variances/Alternate Limits or Conditions.

The permittee has requested alternative effluent limitations under 316(a). Pursuant to a Study Plan approved by the Board, Virginia Power conducted a 316(a) study in 1984 and 1985 and submitted a 316(a) Demonstration Report on June 24, 1986. The Board has reviewed the study and demonstration and found that effluent limitations more stringent than the thermal limitations included in this permit are not necessary to assure the protection and propagation of a balanced indigenous community of shellfish, fish and wildlife in Lake Anna and the North Anna River downstream of the lake.

Since the 316(a) study, temperature monitoring has been performed each year using a continuous recorder at monitoring stations located in the upper lake to the dam (NAL719ST, NAL719NT, NAL208T, NALINT, NALTHIST, NALBRPTT, NALST10), the lagoons (NADISC1, NAWHTF2, NAWHTF3), and the river (NARIV601). (See Attachment 11)

Staff evaluated temperature data from annual reports for 1994, 1997, and 2000-2006. Except for 2002, the temperatures in Lake Anna did not exceed the 32^{o}C water quality criteria value. During 2002 the area experienced a prolonged drought and critical conditions existed. With the facility at peak production of 100%, the 32^{o}C water quality criteria was exceeded in the summer months of June, July, August, and September, at stations throughout the lake and river.

By letter dated July 5, 2006, the permittee formally stated that conditions have not changed substantially and thereby requested continuation of the 316(a) variance. Based on staff's review of the annual reports, staff believes that the variance should be continued.

Outfall 009

Ground Water, Storm Water, and Backwash from Sand Filters and Reverse Osmosis Units

Source: This intermittent discharge is mostly storm water runoff, backwash cleaning from reverse osmosis units (essentially ultra purified lake water) and groundwater. The outfall discharges effluent to the lake from a settling pond.

Source Breakdown	Flow Frequency	Flow Rate/Volume
Settling Pond	Pumping rate dependent on rainfall. Can go for weeks without pumping, and sometimes pumps for weeks.	0.144 MGD - 0.22 MGD (pumping rate when running)
Storm Water	5 days per week; 12 months per year	0.168 MGD (Long Term Average) 0.252 MGD (Maximum Daily) Duration (in days): Varies.
Backwash from Sand Filters and Reverse Osmosis Units		
Ground Water		
Bearing Cooling Tower Water during maintenance activities	Pump down for maintenance purposes. With new tower, this should be rare, at most once every few years over several days.	250,000 Gal. (with no biocide as pumping occurs following cessation of biocide addition)
Ionics Emergency shower wash after neutralization in holding tank	Rare. Hasn't occurred in past 10 years.	N/A

Treatment: Settling with a retention time > 24hrs. Backwash is neutralized prior to settling pond.
Sampling Point: End of pipe.
Discharges To: Lake Anna
Discharge Volume: 0.168 MGD (Average for 2002-2006).

Effluent Screening:
- Effluent data obtained from Form 2C and 2002-2006 DMRs have been reviewed and determined to be suitable for evaluation.
- There have been no exceedances of the established limitations. Data reported in Form 2C was analyzed and Sulfide (as S) and Total Nickel were found to be above the water quality criteria.
- Attachment 8 shows the Water Quality Criteria (WQC) and WLA.

Pollutants of concern:

- Total Suspended Solids (TSS): An evaluation of the 2002–2006 DMR effluent data shows TSS to be below the permit limit.
- Total Dissolved Solids (TDS): Form 2C showed RO rejects contain high concentration of TDS.
- Total Nickel: Form 2C showed total Nickel was 9.0 ug/L. Chronic criteria for dissolved Nickel is 6.3 ug/L at a hardness of 25 mg/L.

Effluent Limitations:
- This outfall discharges effluent to the lake from a settling pond, which receives backwash from reverse osmosis filters and storm water. The effluent limitations for pH are based on the water quality standard. Effluent limitations for other parameters are based on the Best Professional Judgment and are the same as in the previous permit.
- As per the information submitted by the permittee in the previous permit, Outfall 009 is about 200 ft from the intake structure. Due to the nature of the strong circulation pattern resulting from the high volume intake, discharges to the lake from Outfall 009 will be drawn into the intake flow along with the lake water used for cooling. Approximately 2100 MGD of water is circulated in this area. Because of this intense mixing, the TDS and Ni concentrations will quickly dilute well below toxic levels.

- pH*:* Limits are based on the Water Quality Criteria of 6.0 S.U. to 9.0 S.U.

- Total Suspended Solids (TSS): The limit is based on Best Professional Judgment for performance of a settling pond.

Effluent Limitations/Monitoring Requirements: Outfall 009

Average Flow is 0.168 MGD.
Effective Dates: During the period beginning with the permit's effective date and lasting until the expiration date, the permittee is authorized to discharge from Outfall 009 (Ground Water, Storm Water and Backwash from Sand Filters and Reverse Osmosis Units).

PARAMETER	BASIS FOR LIMITS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
		Monthly Average	Daily Maximum	Minimum	Maximum	Frequency	Sample Type
Flow (MGD)	NA	NL	N/A	N/A	NL	2/M	Estimate
pH	3	N/A	N/A	6.0 S.U.	9.0 S.U.	2/M	Grab
Total Suspended Solids (TSS)	2	30 mg/L	100 mg/L	N/A	N/A	1/3M	Grab

The basis for the limitations codes are:
1. Federal Effluent Requirements
2. Best Professional Judgment
3. Water Quality Standards

MGD = Million gallons per day
N/A = Not applicable
NL = No limit; monitor and report
S.U. = Standard units
2/M = Twice every month
1/3M = Once every 3 months

The monitoring frequency of 1/3M is consistent with the recommendations found in the Guidance Memo 98-2006.

The quarterly monitoring periods shall be January 1 - March 31, April 1 - June 30, July 1 - September 30 and October 1 - December 31. The DMR shall be submitted no later than the 10th day of the month following the monitoring period (April 10, July 10, October 10 and January 10, respectively).

Special Conditions Specific to Outfall 009: None.

Outfall 013

Turbine Building Sump 1 & 2 and Storm Water

Source: This is an intermittent discharge consisting mainly of storm water runoff. It includes water from sump pumps in the turbine building that are used only for emergency releases. The storm water component is from an area with no industrial activity and no chemical additions. This outfall is an alternate discharge route for the effluent making up the majority of the flow at Outfall 104. In the event of a discharge from Outfall 013, Outfall 104 data will be submitted to represent Outfall 013. There has not been a discharge from Outfall 013 in over 10 years.

Source Breakdown	Flow Frequency	Flow Rate/Volume
Discharge for Turbine Building Sumps #1 & #2	Days per week and months per year vary. Has discharged once in past 10 years.	Emergency only. Duration (in days): N/A

Treatment: Water flows into a concrete two stage catchment basin before release into Lake Anna.
Sampling Point: At overflow weir.
Discharges To: Lake Anna

- Per information submitted by the permittee, Outfall 013 is about 25 ft. from the intake structure. Due to the nature of the strong circulation pattern resulting from the high volume intake, discharges to the lake from Outfall 013 will be drawn into the intake flow along with the lake water used for cooling. Approximately 2100 MGD of water is circulated in this area.

Effluent Limitations/Monitoring Requirements: Outfall 013

Average Flow is 0.0 MGD.
Effective Dates: During the period beginning with the permit's effective date and lasting until the expiration date, the permittee is authorized to discharge from Outfall 013 (Turbine Building Sump #1 & #2 and Storm Water).

PARAMETER	BASIS FOR LIMITS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
		Monthly Average	Daily Maximum	Minimum	Maximum	Frequency	Sample Type
Flow (MGD)	N/A	NL	N/A	N/A	NL	1/M	Estimate
pH	1,3	N/A	N/A	6.0 S.U.	9.0 S.U.	1/M	Grab
Total Suspended Solids (TSS)	1	30 mg/L	100 mg/L	N/A	N/A	1/M	Grab
Oil and Grease	1	15 mg/L	20 mg/L	N/A	N/A	1/M	Grab

The basis for the limitations codes are:
1. Federal Effluent Requirements
2. Best Professional Judgment
3. Water Quality Standards

MGD = Million gallons per day
N/A = Not applicable
NL = No limit; monitor and report
S.U. = Standard units
1/M = Once every month

Special Conditions Specific to Outfall 013: None.

Outfall 016

Intake Screen Wash Water

Source: This discharge is a low volume, non-process water that consists entirely of lake water. The water is used to wash the traveling screens. Screens are washed based on pressure (?P) across the screen. When debris builds up, screens rotate and are washed with lake water. The basket at the end of the trough collects the debris, and the water is returned to the lake. Intake data will be submitted to represent Outfall 016.

Treatment: Debris removal.
Sampling Point: Discharge into basket.

Discharges To: Lake Anna
Discharge Volume: 0.156 MGD (Average for 2002-2006).

Effluent Screening:

- Effluent data from Form 2C and 2002-2006 DMRs have been reviewed and determined to be suitable for evaluation.
- Data reported in Form 2C was analyzed and Total Zinc was found to be above the water quality criteria.
- Attachment 8 shows the Water Quality Criteria (WQC) and WLA respectfully.

Pollutants of concern:

- Total Zinc: Form 2C showed Total Zinc was 43.0 ug/L. Acute and chronic criteria for dissolved Zinc are both 36.0 ug/L at a hardness of 25 mg/L. Because the discharge is located at the intake, the effluent will immediately be diluted with the intake water.

Effluent Limitations:

- This outfall is a low volume, non-process discharge consists entirely of lake water. No effluent limits or monitoring are proposed other than flow.

Effluent Limitations/Monitoring Requirements: Outfall 016

Average Flow is 0.156 MGD.
Effective Dates: During the period beginning with the permit's effective date and lasting until the expiration date, the permittee is authorized to discharge from Outfall 016 (Intake Screen Wash Water).

PARAMETER	BASIS FOR LIMITS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
		Monthly Average	Daily Maximum	Minimum	Maximum	Frequency	Sample Type
Flow (MGD)	N/A	NL	N/A	N/A	NL	1/Y	Estimate

The basis for the limitations codes are:

1. Federal Effluent Requirements
2. Best Professional Judgment
3. Water Quality Standards

MGD = Million gallons per day
N/A = Not applicable
NL = No limit; monitor and report
1/Y = Once every year

For annual reporting, DMR shall be submitted no later than the 10th day of January following the monitoring period.

Special Conditions Specific to Outfall 016: None.

Outfall 020

Reverse Osmosis Reject

Source: This discharge occurs continuously, but there are times (which are rare, normally during outages when no make-up water is needed and all tanks are full) when it does not occur. It consists of lake water after the reverse osmosis process. Currently, the system isn't chlorinated (potential residual of 0-1ppm free chlorine from sodium hypochlorite used in ionics system), but may be in the future. The system generally increases the order of concentration (3.3x concentration of constituents) of the material in the lake water. Also, this outfall discharges into the incoming cooling water flow just outside the intakes.

Treatment: None.

Sampling Point: End of small pipe, where it empties into larger pipe.

Discharges To: Lake Anna near intake structure

Discharge Volume: 0.37 MGD (Average for 2002-2006).

Effluent Screening:

- Effluent data from Form 2C and 2002-2006 DMRs have been reviewed and determined to be suitable for evaluation.
- There have been no exceedances of the established limitations. Data reported in Form 2C was analyzed and Total Residual Chlorine, Total Copper, and Total Nickel were found to be above the water quality criteria.
- Attachment 8 shows the Water Quality Criteria (WQC) and WLA.

Pollutants of concern:

- Total Suspended Solids (TSS): An evaluation of the 2002–2006 DMR data shows TSS to be below the limit.
- Chlorine: An evaluation of the 2002–2006 DMR effluent data shows Inst Res Max Chlorine to be below the concentration max of 4.0 mg/L. Form 2C showed Total Residual Chlorine was 400 ug/L.
- Total Copper: Form 2C data showed that Total Copper was 4.0 ug/L. Acute and chronic criteria for Dissolved Copper are 3.6 ug/L and 2.7 ug/L respectively at a hardness of 25 mg/L.
- Total Nickel: Form 2C data showed that Total Nickel was 9.0 ug/L. Chronic criteria for Dissolved Nickel is 6.3 ug/L at a hardness of 25 mg/L.

Effluent Limitations:

- The effluent limitations for this outfall are same as in the previous permit and are based on Best Professional Judgment.
- Outfall 020 is about 25 ft from the intake structure. Due to the nature of the strong circulation pattern resulting from the high volume intake, discharges to the lake from Outfall 020 will be drawn into the intake flow along with the lake water used for cooling. Approximately 2100 MGD of water is circulated in this area.

Effluent Limitations/Monitoring Requirements: Outfall 020

Average Flow is 0.37MGD.

Effective Dates: During the period beginning with the permit's effective date and lasting until the expiration date, the permittee is authorized to discharge from Outfall 020 (Reverse Osmosis Reject).

PARAMETER	BASIS FOR LIMITS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
		Monthly Average	Daily Maximum	Minimum	Maximum	Frequency	Sample Type
Flow (MGD)	NA	NL	N/A	N/A	NL	2/M	Estimate
pH	3	N/A	N/A	6.0 S.U.	9.0 S.U.	2/M	Grab
Total Suspended Solids (TSS)	2	30 mg/L	100 mg/L	N/A	N/A	1/3M	Grab
Chlorine	2	NL	4.0 mg/L	N/A	N/A	2/M	Grab

The basis for the limitations codes are:

1. Federal Effluent Requirements
2. Best Professional Judgment
3. Water Quality Standards

MGD = Million gallons per day
N/A = Not applicable
NL = No limit; monitor and report
S.U. = Standard units
2/M = Twice every month
1/3M = Once every 3 months

-The monitoring frequency of 1/3M is consistent with the recommendations found in the Guidance Memo 98-2005.

- The quarterly monitoring periods shall be January 1 - March 31, April 1 - June 30, July 1 - September 30 and October 1 - December 31. The DMR shall be submitted no later than the 10th day of the month following the monitoring period (April 10, July 10, October 10 and January 10, respectively).

Special Conditions Specific to Outfall 020: None.

Outfall 021

Reverse Osmosis Drain Line

Source: This discharge is lake water from the reverse osmosis system. Outfall 021 has never been used since installation and is in the permit for emergency use only. It would be used if both nuclear units went offline unexpectedly during freezing weather conditions i.e. in the case where the whole ionic system is down and the line needs to be drained. Intake data will be submitted to represent Outfall 021.

Treatment: None.

Sampling Point: Middle of pipe at valve.

Discharges To: Lake Anna near intake structure

- Effluent limits are the same as Outfall 016.

Effluent Limitations/Monitoring Requirements: Outfall 021

Average Flow is 0.0 MGD.

Effective Dates: During the period beginning with the permit's effective date and lasting until the expiration date, the permittee is authorized to discharge from Outfall 021 (Reverse Osmosis Drain Line).

PARAMETER	BASIS FOR LIMITS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
		Monthly Average	Daily Maximum	Minimum	Maximum	Frequency	Sample Type
Flow (MGD)	N/A	NL	N/A	N/A	NL	1/M	Estimate

The basis for the limitations codes are:

1. Federal Effluent Requirements
2. Best Professional Judgment
3. Water Quality Standards

MGD = Million gallons per day

N/A = Not applicable

NL = No limit; monitor and report

1/M = Once every month

Special Conditions Specific to Outfall 021: None.

Outfalls 014, 022, 023, 024, 025, and 026
Drainage Areas 2A, 2B, 3, 18, and 25 - Storm Water Only

Storm Water Description:

6 outfalls (014, 022, 023, 024, 025, and 026) were identified as separate storm water only discharges associated with industrial activities as shown below in the Storm Water Drainage Area Characterizations.

3 outfalls (104, 009, and 013 in the reissued permit) were identified as combined process water and storm water discharges and are authorized by the current permit as combined process water and storm water discharges. But the storm waters discharged from these outfalls are not associated with industrial activities.

Storm Water Drainage Area Characterizations: (See map in the application form)

Except as indicated in the individual drainage area characterizations below, all industrial activities and materials at the station are conducted, handled, or stored in enclosures which prevent exposure to storm water or runoff. The majority of the drainage areas have no industrial activity, which includes storage of material, use of pesticides, herbicides, or fertilizers, disposal of significant materials, etc., past or present.

Area 31, 2A, 2B, 3, 18, and 25 were determined to include storm water-only discharges draining vicinities associated with industrial activities and, although those activities are not generally exposed to storm water, were included in the sampling and analysis efforts for this application. These drainage areas are discussed in more detail below.

Storm water discharges which are combined with process discharges are those in the main part of the station which were included in the existing VPDES permit outfalls. These are identified and discussed below in the section regarding "evaluation of other drainage areas." Storm water sampling of these discharges was conducted for the current permit application.

Station herbicide usage is limited to minor spot applications of Roundup, as needed, around the main station buildings and adjacent parking lots and roadways. System herbicide use occurs periodically under transmission lines on the site using Accord, Arsenal, and/or Roundup. No pesticides are used at the station. Controlled amounts of fertilizers are applied twice per year.

Outfalls Covered By This Application:

Area 31 (Outfall 014): Storm water is collected and discharged to Lake Anna via Outfall 014 of the current VPDES permit. Storm water drains the back half of the outside of the turbine building, and no industrial influence occurs at this outfall.

Area 2A (Outfall 022): This is an area of approximately 52 acres, with approximately 7.1 acres of impervious area. Storm water collected in the higher portion to the south, contractor shops, parking lots, and the switch yard flows into a drop grating to a culvert near the northeast corner of the switch yard and discharges into Lake Anna at Outfall 022. The lower, more level portion includes a vehicle maintenance shop, a paint shop, and part of an outdoor equipment lay down area. Storm water runoff from the grassed portions of this area adjacent to the lakeshore is generally sheet flow. Runoff from the graveled lots around the shops and laydown areas is collected in a swale which discharges at the Outfall 022 along with flows from the culvert. The storm water is from an area with no industrial activity and no chemical additions.

Area 2B (Outfall 023): This is a small area of approximately 6 acres. The only impervious area is the 0.09 acre storage building which is used for hazardous waste accumulation, with other miscellaneous storage. This storage building is constructed with a curbed foundation to contain any spillage and to prevent any discharge outside the structure. Storm water collected in the higher portion to the south flows into a culvert under this storage building then discharges into Lake Anna at Outfall 023. Storm water runoff from the grassed portions of this area adjacent to the lake shore is generally sheet flow. The storm water is from an area with no industrial activity and no chemical additions.

Area 3 (Outfall 024): A small drainage area of 9 acres with primarily sheet flow runoff of storm water to Lake Anna. About 0.08 acre is paved and impervious. A portion of the laydown area, shared with Area 2A has runoff through a drop culvert (sample point 024) under the roadway and into Lake Anna at Outfall 024. The storm water is from an area with no industrial activity and no chemical additions.

Area 18 (Outfall 025): This 56 acre drainage area, with 4 acres of impervious area, includes a portion of the warehouse facilities, an outdoor laydown area, and some small utility buildings. Storm water from the northern portion of this drainage area is conveyed under the paved roadway via two culverts. The culvert to the west carries the smaller amount of storm water flow which drains from opened, grassed fields with no industrial activity. The culvert to the east was chosen as

the sample point for Area 18 because it carries the collected drainage from the larger portion of the area, from the warehouse and laydown facilities, and would be more likely to contain any contaminants. Outfall 025 discharges storm water from this drainage into the WHTF. The storm water is from an area with no industrial activity and no chemical additions.

Area 25 (Outfall 026): This 61 acre drainage area has no impervious surface area. In the northern portion of Area 25, there is a site (labeled "slabs" on map) used for temporary exposed storage of discarded miscellaneous material such as large concrete "dead weight" blocks for crane weight testing, small movable buildings, etc. This portion of the drainage area has runoff through a culvert under the roadway and into Lake Anna at Outfall 026. This culvert was selected as the sample point for Area 25; no industrial activities occur downstream. As with other lakeside areas, sections adjacent to the shoreline, north of the graveled roadway have sheet flow runoff of storm water. The storm water is from an area with no industrial activity and no chemical additions.

Effluent Screening:

- Effluent data from Form 2F and 2002 DMRs are suitable for evaluation.
- Attachment 8 shows the Water Quality Criteria (WQC) and WLAs.
  - Outfall 022
    - DMR data for the rain event date of September 26, 2002 showed total recoverable Fe was 3.04 mg/L.
    - Form 2F showed:
      - Total Dissolved Solids: The effluent contains concentrated cations and anions.
      - Total Cadmium: Total Cadmium was 0.4 ug/L.
      - Total Copper: Total Copper was 12 ug/L.
      - Total Lead: Total Lead was 7 ug/L.
      - Total Zinc: Total Zinc was 190 ug/L.
  - Outfall 023
    - DMR data for the rain event date of September 26, 2002 showed total recoverable Fe was 0.79 mg/L.
    - Form 2F showed:
      - Total Dissolved Solids: The effluent contains concentrated cations and anions.
      - Total Cadmium: 3.3 ug/L.
      - Total Copper: 78 ug/L,
      - Total Lead: 46 ug/L
      - Total Nickel: 19.0 ug/L
      - Total Zinc: 2550 ug/L
  - Outfall 024
    - DMR data for the rain event date of September 26, 2002 showed total recoverable Fe was 31.08 mg/L
    - Form 2F showed:
      - Total Dissolved Solids: The effluent contains concentrated cations and anions.
      - Total Cadmium: 1.3 ug/L
      - Total Copper: 50 ug/L
      - Total Lead: 43 ug/L
      - Total Nickel: 22 ug/L
      - Total Silver: 1.0 ug/L
      - Total Zinc: 414 ug/L
  - Outfall 025
    - DMR data for the rain event date of September 26, 2002 showed that total recoverable Fe was 1.22 mg/L
    - Form 2F showed:
      - Total Dissolved Solids: The effluent contains concentrated cations and anions.
      - Total Cadmium: 0.6 ug/L
      - Total Copper: 7 ug/L,
      - Total Lead: 4 ug/L
      - Total Zinc: 200 ug/L
  - Outfall 026
    - DMR data for the rain event date of September 26, 2002 showed that total recoverable Fe was 18.14 mg/L
    - Form 2F showed:
      - Total Cadmium: 0.9 ug/L
      - Total Lead: 26 ug/L
      - Total Zinc: 354 ug/L

Effluent Limitations:
No monitoring is required. Monitoring required by Form 2F suffices for these discharges.

Evaluation Of Other Drainage Areas:
Area 1: All storm water drainage is into the settling pond which discharges via Outfall 009 of the current VPDES permit.

Areas 4, 6 ,7, 8, 9: Predominantly impervious areas with administrative buildings, enclosed storage facilities, a cooling tower for bearing cooling water (in Area 4) and parking lots. No industrial activities or materials exposed to storm water. No storm waters with pollutants associated with industrial activity are expected to be discharged from these areas. Storm water discharges flow into Lake Anna.

Area 5: A small area with sheet flow drainage to Lake Anna. The only activity in this area is the main sewage treatment plant, which discharges into the discharge canal via Outfall 111.

Areas 10 and 11: Predominantly impervious areas with administrative buildings, enclosed storage facilities, and parking lots. No industrial activities or materials exposed to storm water. No storm waters with pollutants associated with industrial activity are expected to be discharged from these areas. Storm water drainage is into the discharge canal.

Area 12: No industrial activity exposed to storm water. Drains into the discharge canal.

Area 13: Includes a portion of the warehouse area and maintenance shops. No industrial activity exposed to storm water. Drains into the discharge canal.

Area 14: A wooded area with some training buildings, recreational facilities, parking lots, roadways, a helicopter pad, and grassed areas in the northernmost section. No industrial activity. Drainage is into Lake Anna.

Area 15: A predominantly natural, wooded area with an instrument laboratory and small storage facilities. No industrial activity. Drainage is into Lake Anna.

Area 16: An area of generally sheet flow drainage into the discharge canal of Lake Anna. The area included recreational facilities, a security training facility with a firing range, parking lots, roadways, wooded areas, and grassed areas. No industrial activity.

Area 17: This area includes a portion of the warehouse facilities. No storm waters with pollutants associated with industrial activity are expected to be discharged from this area. Storm water drainage is primarily into the WHTF with some sheet flow along the discharge canal.

Area 19: This area is mostly a natural, wooded area with a grassed portion in the northern section above the roadway. This section includes a storage structure for retired steam generators which is totally enclosed with no exposure to storm water. No industrial activity. The spent nuclear fuel storage facility is presently under construction in this area.

Area 20: This area is mostly a natural, wooded area which includes the North Anna Nuclear Information Center (NANIC) in the northern section adjacent to the roadway. No industrial activity.

Area 24: This area is mostly a natural, wooded area which includes a landfill and a borrow pit in the northern portion. The landfill receives only sandblast materials, gravel, soil, and broken concrete and is not used for disposal of other wastes. An area adjacent to the landfill is used for the temporary storage of logs and mulch. No industrial activity.

Area 21, 22, 23, 26, 27, 28, and 29: These are wooded, undisturbed areas with natural drainage. No industrial activity.

Area 30: Storm water at the main portion of the station encompassing the major components is collected and discharged to the discharge canal via Outfall 104 of the current VPDES permit.

Area 32: Storm water is collected and discharged to Lake Anna via Outfall 013 of the current VPDES permit.

Exclusion Boundary: The Exclusion Boundary marks an established zone of owner control around the nuclear power units and was chosen as the limit of the area of consideration for this application. Although Virginia Power owns considerable amounts of property outside this boundary, there are no industrial activities or other sources of industrial storm water contamination outside of those discussed above.

Effluent Limitations/Monitoring Requirements: Outfalls 014, 022, 023, 024, 025, and 026

Effective Dates: During the period beginning with the permit's effective date and lasting until the expiration date, the permittee is authorized to discharge from Outfalls 014, 022, 023, 024, 025, and 026 (Drainage Areas 31, 2A, 2B, 3, 18, and 25 - Storm Water Only).

-No monitoring is required. Monitoring required by Form 2F suffices for these discharges.

Special Conditions Specific to Outfalls 014, 022, 023, 024, 025, and 026:

Storm Water Management Requirement.

Storm Water Management requirements are derived from the VPDES General Permit for discharges of storm water associated with industrial activity, 9 VAC 25-151-10 et seq. VPDES Permit Regulation, 9 VAC 25-31-220 K, requires use of Best Management Practices where applicable to control or abate the discharge of pollutants where numeric effluent limits are infeasible or the practices are necessary to achieve effluent limit or to carry out the purpose and intent of the Clean Water Act and State Water Control Law. Required for all Steam Electric Power Plant with storm water discharges associated with industrial activities.

Outfall 101
Condenser Cooling Water (Internal Outfall)

Source: This outfall continuously discharges condenser cooling water to the discharge canal which then enters the Waste Heat Treatment Facility (WHTF). The water is non-contact, once through cooling water withdrawn from Lake Anna. Discharge is based on volume taken at intake for once through cooling water.

Outfall Description: Under the current permit, heat rejection is limited and reported under Outfall 001. Outfall 001 is located at Dike 3 where water from the Waste Heat Treatment Facility (WHTF) enters Lake Anna. Retention time in the WHTF is approximately 7.5 days. Internal Outfall 101 is being established to better facilitate the reporting of heat rejection and to reflect the fact that the heat rejection limit does not account for heat removed from the WHTF.

Treatment: None. The WHTF dissipates the heat prior to discharge through Outfall 001.

Sampling Point: Flow shall be recorded at the intake and temperature shall be recorded at both intake and outfall.

Discharges To: Discharge canal to the WHTF.

Effluent Screening:

- Effluent data is not available for this particular outfall as it is being established with this reissuance. However, an evaluation of the 2002–2006 DMR effluent data for heat rejection (previously monitored at Outfall 001) shows all heat rejection values reported to be below the permit limit.

Effluent Limitations:

- Temperature: Monitoring of temperature at the inlet waterbox and temperature at the outlet waterbox is being added at a frequency of 1/D.
- Flow at Outfall 101: Weekly flow estimates are required so as to record volume of discharge.
- Heat Rejection Limit: The parameter "Heat Rejection" is defined as the rate of heat transfer from a unit's condenser to its circulating water system. In general, it is the amount of energy (heat) produced minus the amount converted to electricity. For most electrical generation facilities it is approximately 2/3 of the heat generated to produce the steam to create the electricity. It is calculated directly by conservation of mass and energy either across the circulating water system (condenser tub side) or from the turbine exhaust to the hotwell (condenser shell side). Heat Rejection is measured in BTU/Hour.

  The heat rejection to the WHTF is based on the design efficiency of the power plant, approximately 13.3E9 BTU/hr with both units in operation. The heat rejection calculated for the permit limit is based on 2% above this value so as to account for normal plant performance variations. The calculation for the limit is as follows:

  Heat Rejection Rate = (NSS Unit Output - Gross Electric Output) (conv factor) (2 units)
  = (2968 MWt / unit – 988.45 MWt / unit) (3.4192E6 BTU/MW/hr) (2 units)
  = 13.537E9 BTU / hr

  The NSS rating for the power plant is 2968 MWt; this is 2% above the plant's power rating of 2910 MWt. The rating is based on a circulating water temperature of 95°F. The NSS rating recognizes the total amount of heat produced in the steam system and is the sum of the electrical energy produced plus the waste heat that has not been converted to electricity. The efficiency at which the station can generate electrical energy is primarily dependent upon the temperature and pressure of the steam generated and directly affects the amount of energy lost as waste heat to the environment. When a unit is operating at a specific load and at a specific efficiency, the waste heat load remains virtually constant.

  The value of 13.54E9 BTU/hr is the limit originally assigned to the facility in the 401certification issued in 1973 and is what was used in part to design (size) the WHTF. The limit is carried forward since the design and operating parameters for Units 1 and 2 have not changed and there have been no water quality problems noted with the heat leaving when this requirement was in place at Outfall 001.

- Heat Rejection Calculation: Monthly maximum heat rejection is currently reported on the discharge monitoring report (DMR) for Outfall 001. Heat rejection shall be calculated using the following equation and shall be reported on the DMR for Outfall 101:

$$Q = \frac{C_p m(?T)}{24 \text{ hours}}$$

Where Q = Heat Rejection, BTU/Hour
C_p = Heat Capacity (Specific Heat) of pure water
= 1.0 BTU/pound ^oF
m = mass of water
= flow rate (MGD) x specific gravity of pure water
= flow rate (MGD) x 8.34 pounds/gallon
? T = temperature at outlet waterbox – temperature at inlet waterbox, ^oF

Effluent Limitations/Monitoring Requirements: Outfall 101

Average Flow is 2100 MGD.
Effective Dates: During the period beginning with the permit's effective date and lasting until the expiration date, the permittee is authorized to discharge from Outfall 101 (Condenser Cooling Water to discharge canal).

PARAMETER	BASIS FOR LIMITS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
		Monthly Average	Daily Maximum	Minimum	Maximum	Frequency	Sample Type
Flow (MGD)(1)	N/A	NL	N/A	N/A	NL	1/D	Calculated and Recorded
Temperature at Inlet Waterbox (^oF)	N/A	NL	NL	N/A	N/A	1/D	Recorded
Temperature at Outlet Waterbox (^oF)	N/A	NL	NL	N/A	N/A	1/D	Recorded
Heat Rejected (10^9 BTU/Hr)(2)	2,3	N/A	N/A	N/A	13.54	1/D	Calculated

The basis for the limitations codes are:
1. Federal Effluent Requirements
2. Best Professional Judgment
3. Water Quality Standards

MGD = Million gallons per day
N/A = Not applicable
NL = No limit; monitor and report
1/D = Once per day.

(1) The value reported as the daily maximum flow for the report period shall be the intake flow rate which occurred on the day that the maximum heat rejected was calculated from Units 1 and/or 2.

(2) Heat rejected rate submitted monthly shall be a calculation of the maximum heat directed to the waste heat treatment facility from Units 1 and/or 2. Calculations are to be included with the monthly DMR

Special Conditions Specific to Outfall 101: None

Outfall 103
Process Waste Clarifier

Source: This discharge includes intermittent low volumes of steam generator blowdown, package boiler blowdown (not currently in use), mat sump system discharge, ion exchanger waste and intermittent blowdown of the Service Water Reservoir.

Source Breakdown	Flow Frequency	Flow Rate/Volume
Process Waste Clarifier	Runs approx. 50% of the time.	0.359 MGD (when running)
Steam Generator Blowdown	Low volume. Only used during unit shut down and start up (every 18 mo) or during maintenance or problems with normal high volume blowdown (several times per year at several weeks each time).	0.043 MGD (per steam generator – 3 each unit) 0.26 MGD (Max. total)
Package Boiler Blowdown	Boilers have not been used for over 10 yrs. No usage anticipated.	N/A
Mat Sump System	Pumps ground water from around containment below grade. Relatively constant, low volume.	N/A
Ion Exchange Waste	Radioactive water from primary leaks, component cooling, maintenance, etc. Goes through ion exchange to remove radioactivity. Relatively constant.	N/A
Service Water System Blowdown (intermittent)	Intermittent, frequency not known.	N/A

Treatment: Discharges collect in holding tank and release to circulating tunnel and then to cooling water outfall.
Sampling Point: Clarifier building sink.
Discharges To: Discharge Canal
Discharge Volume: 0.359 MGD (Average for 2002-2006).

Effluent Screening:
- Effluent from Form 2C and 2002-2006 DMRs are suitable for evaluation.
- There have been no exceedances of the established limitations. Data reported in Form 2C was analyzed and Sulfide, total Cadmium, total Copper, total Lead, total Nickel, and total Zinc were found to be above the water quality criteria.
- Attachment 8 shows the Water Quality Criteria (WQC) and WLA.

Pollutants of concern:
- Total Suspended Solids (TSS): An evaluation of the 2002–2006 DMR data shows TSS to be below the limit.
- Oil and Grease (O&G): An evaluation of the 2002–2006 DMR data shows O&G to be below the limit.
- Total Dissolved Solids (TDS): Form 2C showed the effluent contains concentrated cations and anions.
- Total Cadmium: Form 2C showed total Cadmium was 26.3 ug/L.
- Total Copper: Form 2C showed total Copper was 42.4 ug/L
- Total Lead: Form 2C showed total Lead was 7.87 ug/L.
- Total Nickel: Form 2C showed total Nickel was 19.0 ug/L
- Total Zinc: Form 2C showed total Zinc was 303.0 ug/L.

Effluent Limitations:
-This internal outfall is considered as "low volume waste sources" under the Steam Electric Power Generating guidelines. The effluent limitations for this outfall are based on Federal Effluent Guidelines. The above concentrations do not pose any reasonable threats to water quality criteria since they are internal outfalls.

- pH: 6.0 S.U. – 9.0 S.U. based on Water Quality
- Total Suspended Solids (TSS): The limit for TSS is based on Federal Effluent Guidelines.
- Oil and Grease (O&G): The limit for O&G is based on Federal Effluent Guidelines.

Effluent Limitations/Monitoring Requirements: Outfall 103

Average Flow is 0.359 MGD.
Effective Dates: During the period beginning with the permit's effective date and lasting until the expiration date, the permittee is authorized to discharge from Outfall 103 (Process Waste Clarifier).

PARAMETER	BASIS FOR LIMITS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
		Monthly Average	Daily Maximum	Minimum	Maximum	Frequency	Sample Type
Flow (MGD)	N/A	NL	N/A	N/A	NL	1/Y	Estimate
pH	1	N/A	N/A	6.0 S.U.	9.0 S.U.	1/Y	Grab
Total Suspended Solids (TSS)	1	30 mg/L	100 mg/L	N/A	N/A	1/Y	Grab
Oil and Grease	1	15 mg/L	20 mg/L	N/A	N/A	1/Y	Grab

The basis for the limitations codes are:
1. Federal Effluent Requirements
2. Best Professional Judgment
3. Water Quality Standards

MGD = Million gallons per day
N/A = Not applicable
NL = No limit; monitor and report
S.U. = Standard units
1/Y = Once every year

-For annual reporting, DMR shall be submitted no later than the 10th day of January following the monitoring period.

Special Conditions Specific to Outfall 103:

pH Monitoring for Internal Outfalls.

The internal outfalls 103, 104, 105, 108, 109, 110, 112, and 113 discharge into an internal discharge canal that then discharges into the waste heat treatment facility (3 lagoons) and then discharges to Lake Anna via Outfall 001. The huge quantity of water in the internal discharge canal (about 2000 MGD) provides a very significant assimilative ability for small discharges from these internal outfalls. Also, as per the memo from Fred Holt, OWRM, dated May 3, 1990 (Steam/Electric Permits), the technology limits for pH need only be met at the point of final discharge. Since pH for all these internal outfalls are based upon technology limit and the violation of water quality standard is not expected, the pH monitoring point for these internal outfalls is redefined to the cooling water discharge canal.

Outfall 104

Oil/Water Separator and Storm Water

Source: This discharge consists of storm water runoff and turbine building sump water via the low volume sump pumps to the Waste Heat Treatment Facility. This discharge was previously approved to represent Outfalls 013. The storm water component is from an area with no industrial activity.

Source Breakdown	Flow Frequency	Flow Rate/Volume
Oil/Water Separator	Industrial outflow primarily from turbine building sumps.	0.271 MGD (Long Term Average) 0.432 MGD (Maximum)
Storm Water	Intermittent	N/A
Turbine Building Sumps	Low volume discharge pumps and one high volume emergency use only turbine building sump #3. Turbine sumps collect non-radioactive system leaks, condensation, equipment maintenance, etc. and go through oil/water separator. Continuous flow.	N/A
Service Water Reservoir Line Drains	Intermittent flow, system maintenance, several times per year. Infrequent.	Several hundred gal.

Treatment: Mechanical oil/water separator.
Sampling Point: At overflow weir.
Discharges To: Discharge Canal
Discharge Volume: 0.271 MGD (Average for 2002-2006).

Effluent Screening:
- Data from Form 2C and 2002-2006 DMRs are suitable for evaluation.
- There have been no exceedances of the established limitations due to no discharge. Data in Form 2C was analyzed and Ammonia, Sulfide, total Copper, and total Zinc were found to be above the water quality criteria.
- Attachment 8 shows the Water Quality Criteria (WQC) and WLA.

Pollutants of concern:

- Total Suspended Solids (TSS): An evaluation of the 2002–2006 DMR effluent data shows TSS to be below the limit.
- Oil and Grease (O&G): An evaluation of the 2002–2006 DMR effluent data shows O&G to be below the limit.
- Ammonia: Form 2C showed total Ammonia was 19.2 mg/L
- Total Dissolved Solids (TDS): Form 2C showed the effluent contains concentrated cations and anions.
- Total Copper: Form 2C showed total Copper was 25.0 ug/L.
- Total Zinc: Form 2C showed total Zinc was 412.0 ug/L.

Effluent Limitations:

-This internal outfall is considered as "low volume waste sources" under the Steam Electric Generating guidelines. The effluent limitations for this outfall are based on the Federal Effluent Guidelines and are the same as in the previous permit.

- pH*:* Water Quality Criteria states that it shall be a minimum value of 6.0 S.U. and a maximum value of 9.0 S.U. No change to pH limitations is proposed, and the pH range of 6.0 S.U. minimum and 9.0 S.U. monthly maximum is given at this outfall.

- Total Suspended Solids (TSS): The limit for TSS is based on Federal Effluent Guidelines and is the same as in the previous permit.

- Oil and Grease (O&G): The limit for Oil and Grease is based on Federal Effluent Guidelines and is the same as in the previous permit.

Effluent Limitations/Monitoring Requirements: Outfall 104

Average Flow is 0.271 MGD.
Effective Dates: During the period beginning with the permit's effective date and lasting until the expiration date, the permittee is authorized to discharge from Outfall 104 (Oil/Water Separator & Storm Water).

PARAMETER	BASIS FOR LIMITS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
		Monthly Average	Daily Maximum	Minimum	Maximum	Frequency	Sample Type
Flow (MGD)	N/A	NL	N/A	N/A	NL	1/Y	Estimate
pH	1	N/A	N/A	6.0 S.U.	9.0 S.U.	1/Y	Grab
Total Suspended Solids (TSS)	1	30 mg/L	100 mg/L	N/A	N/A	1/Y	Grab
Oil and Grease	1	15 mg/L	20 mg/L	N/A	N/A	1/Y	Grab

The basis for the limitations codes are:
1. Federal Effluent Requirements
2. Best Professional Judgment
3. Water Quality Standards

MGD = Million gallons per day
N/A = Not applicabl
NL = No limit; monitor and report
S.U. = Standard units
1/Y = Once every year

- For annual reporting, DMR shall be submitted no later than the 10th day of January following the monitoring period.

Special Conditions Specific to Outfall 104:

pH Monitoring for Internal Outfalls.

Internal outfalls 103, 104, 105, 108, 109, 110, 112, and 113 discharge into an internal discharge canal that then discharges into a waste heat treatment facility (3 lagoons) and then discharges to Lake Anna via Outfall 001. The huge quantity of water in the internal discharge canal (about 2000 MGD) provides a very significant assimilative ability for small discharges from these internal outfalls. Also, as per the memo from Fred Holt, OWRM, dated May 3, 1990 (Steam/Electric Permits), the technology limits for pH need only be met at the point of final discharge. Since pH for all these internal outfalls are based upon technology limit and the violation of water quality standard is not expected, the pH monitoring point for these internal outfalls is redefined to the cooling water discharge canal.

Outfall 105
Bearing Cooling Tower Blowdown

Source: This discharge is the blowdown from the cooling towers. The blowdown controls the water chemistry in the system intermittently when either of the units is operating.

Source Breakdown	Flow Frequency	Flow Rate/Volume
Bearing Cooling Tower Blowdown	Blowdown of the system is continuous except for about 1 week per quarter. Discharge is 6 days per week at 12 months per year.	0.070 MGD (Long Term Average) Duration (in days): approx. 30
Lake to Lake Operation for BCS (intermittent)	Normally through Outfall 107.	17.3 MGD (Maximum Daily)
Strainer Blowdown/Maintenance	Strainer blowdown operates on pressure (?P). Maintenance infrequent.	unknown (insignificant)

Treatment: None.
Sampling Point: Sample tap at turbine bldg basement.
Discharges To: Discharge Canal
Discharge Volume: 0.070 MGD (Average for 2002-2006).

Effluent Screening:
- Data from Form 2C and 2002-2006 DMRs are suitable for evaluation.
- There have been no exceedances of the established limitations. Data in Form 2C was analyzed and total Copper, total Nickel, and total Zinc were found to be above the water quality criteria.
- Attachment 8 shows the Water Quality Criteria (WQC) and WLA.

Pollutants of concern:
- Free Available Chlorine: An evaluation of the 2002–2006 DMR data shows Chlorine to be below the limit.
- Total Chromium: An evaluation of the 2002–2006 DMR effluent data shows total Chromium to be below the limit.
- Total Copper: Form 2C showed total Copper was 62.0 ug/L.
- Total Nickel: Form 2C showed total Nickel was 27.0 ug/L
- Total Zinc: Form 2C showed total Zinc was 974.0 ug/L.

Effluent Limitations:
- This internal outfall is considered as "cooling tower blowdown" under the Steam Electric Generating guidelines. The effluent limitations for this outfall are based on the Federal Effluent Guidelines. The limits are the same as in the previous permit.

- pH: 6.0 S.U.-9.0 S.U.
- Free Available Chlorine: The limit for Inst Res Max Chlorine is based on Federal Effluent Guidelines.
- Total Chromium: The limit for total Chromium is based on Federal Effluent Guidelines.
- Total Zinc: The limit for total Zinc is based on Federal Effluent Guidelines.
- 126 Priority Pollutants Except Zinc & Chromium: The limit for 126 Priority Pollutants is based on Federal Effluent Guidelines and is the same as in the previous permit.; non-detectable.

Effluent Limitations/Monitoring Requirements: Outfall 105

Average Flow is 0.070 MGD.
Effective Dates: During the period beginning with the permit's effective date and lasting until the expiration date, the permittee is authorized to discharge from Outfall 105 (Bearing Cooling Tower Blowdown).

PARAMETER	BASIS FOR LIMITS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
		Monthly Average	Daily Maximum	Minimum	Maximum	Frequency	Sample Type
Flow (MGD)	N/A	NL	N/A	N/A	NL	1/M	Estimate
pH	1	N/A	N/A	6.0 S.U.	9.0 S.U.	1/M	Grab
Free Available Chlorine	1	0.2 mg/L	0.5 mg/L	N/A	N/A	1/M	Grab
Total Chromium	1	0.2 mg/L	0.2 mg/L	N/A	N/A	1/3M	Grab
Total Zinc	1	1.0 mg/L	1.0 mg/L	N/A	N/A	1/3M	Grab
126 Priority Pollutants Except Zinc & Chromium	1	ND	ND	N/A	N/A	1/3M	Grab

The basis for the limitations codes are:
1. Federal Effluent Requirements
2. Best Professional Judgment
3. Water Quality Standards

MGD = Million gallons per day
N/A = Not applicable
NL = No limit; monitor and report
S.U. = Standard units
ND = No detectable amount by the analytical methods in 40 CFR Part 136

1/M = Once every month
1/3M = Once every 3 months

-The monitoring frequency of 1/3M is consistent with the recommendations found in the Guidance Memo 98-2005.

- The quarterly monitoring periods shall be January 1 - March 31, April 1 - June 30, July 1 - September 30 and October 1 - December 31. The DMR shall be submitted no later than the 10th day of the month following the monitoring period (April 10, July 10, October 10 and January 10, respectively).

Special Conditions Specific to Outfall 105:

Chlorine Discharge From Cooling Tower.
Per 40 CFR 423.

Additional Instructions Regarding 126 Priority Pollutants.
Per 40 CFR 423. The permittee may submit engineering calculations to show compliance.

pH Monitoring for Internal Outfalls.
The internal outfalls 103, 104, 105, 108, 109, 110, 112, and 113 discharge into an internal discharge canal that then discharges into a waste heat treatment facility (3 lagoons) and then discharges to Lake Anna via Outfall 001. The huge quantity of water in the internal discharge canal (about 2000 MGD) provides a very significant assimilative ability for small discharges from these internal outfalls. Also, as per the memo from Fred Holt, OWRM, dated May 3, 1990 (Steam/Electric Permits), the technology limits for pH need only be met at the point of final discharge. Since pH for all these internal outfalls are based upon technology limit and the violation of water quality standard is not expected, the pH monitoring point for these internal outfalls is redefined to the cooling water discharge canal.

Outfall 107

Bearing Cooling System Discharge – Lake to Lake Operation

Source: This outfall is not currently in use. If a discharge were to occur, it would be temporary when the bearing cooling tower is valved off for maintenance work. Should it occur, lake water would pass through the bearing cooling system, bypass the cooling tower, and go straight to the WHTF. No treatment chemicals are used.

Source Breakdown	Flow Frequency	Flow Rate/Volume
Bearing Cooling System Discharge	Primary discharge for Lake to Lake operation. But this is emergency use only for tower maintenance. Expected use is once per year with untreated lake water. Days per week and months per year vary.	2.5 MGD (Long Term Average) 18.0 MGD (Maximum Daily) Duration (in days): approx. 30
Lake to Lake Operation for BCS (intermittent)		
Continuous Blowdown		

Treatment: There is no treatment.
Sampling Point: Sample tap at turbine building basement.
Discharges To: Discharge Canal
- This internal outfall is not addressed by Steam Electric Power Generating Guidelines.

Effluent Limitations/Monitoring Requirements: Outfall 107

Average Flow is 2.5 MGD.
Effective Dates: During the period beginning with the permit's effective date and lasting until the expiration date, the permittee is authorized to discharge from Outfall 107 (Bearing Cooling System Discharge – Lake to Lake Operation).

PARAMETER	BASIS FOR LIMITS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
		Monthly Average	Daily Maximum	Minimum	Maximum	Frequency	Sample Type
Flow (MGD)	N/A	NL	N/A	N/A	NL	1/Y	Estimate
Total Residual Chlorine	2	NL	4.0 mg/L	N/A	N/A	1/Y	Grab

The basis for the limitations codes are:
1. Federal Effluent Requirements
2. Best Professional Judgment
3. Water Quality Standards

MGD = Million gallons per day.
N/A = Not applicable.
NL = No limit; monitor and report.
1/Y = Once every year.

-For annual reporting, DMR shall be submitted no later than the 10th day of January following the monitoring period.

Special Conditions Specific to Outfall 107: None.

Outfall 108

Service Water Overflow

Source: This outfall is manually operated with a valve and is used intermittently to control the level of the Service Water Reservoir as necessary. Outfall 108 is substantially identical to Outfalls 114 and 115.

Source Breakdown	Flow Frequency	Flow Rate/Volume
Service Water Overboard Overflow	Used to reduce level of service water reservoir i.e. for long periods of heavy rain such tropical storms, etc. rarely used.	0.537 MGD (Long Term Average) Duration (in days): approx. 30
Batch Blowdown (intermittent)		13 MGD
Straight-through cooling water (intermittent)	Lake to lake emergency only. Has not been used in over 20 years.	14.1 MGD (Maximum Daily)
Header maintenance	Maintenance occurs approx. once per quarter to drain header.	0.15 MGD

Treatment: None.
Sampling Point: Sample tap at turbine building basement.
Discharges To: Discharge Canal
Discharge Volume: 0.537 MGD (Average for 2002-2006).

Effluent Screening:
- Data from Form 2C and 2002-2006 DMRs are suitable for evaluation.
- There have been no exceedances of the established limitations. Data reported in Form 2C were analyzed and no pollutants were found to be above the water quality criteria.

Effluent Limitations:
- This internal outfall is not addressed by Steam Electric Power Generating Guidelines. The effluent limitations for this outfall are same as in the previous permit and are based on Best Professional Judgment.

Effluent Limitations/Monitoring Requirements: Outfall 108

Average Flow is 0.537 MGD.
Effective Dates: During the period beginning with the permit's effective date and lasting until the expiration date, the permittee is authorized to discharge from Outfall 108 (Service Water Overflow).

PARAMETER	BASIS FOR LIMITS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
		Monthly Average	Daily Maximum	Minimum	Maximum	Frequency	Sample Type
Flow (MGD)	N/A	NL	N/A	N/A	NL	1/Y	Estimate
pH	2	N/A	N/A	6.0 S.U.	9.0 S.U.	1/Y	Grab

The basis for the limitations codes are:
1. Federal Effluent Requirements
2. Best Professional Judgment
3. Water Quality Standards

MGD = Million gallons per day
N/A = Not applicable
NL = No limit; monitor and report
S.U. = Standard units
1/Y = Once every year

-For annual reporting, DMR shall be submitted no later than the 10th day of January following the monitoring period.

Special Conditions Specific to Outfall 108:

pH Monitoring for Internal Outfalls.

Internal outfalls 103, 104, 105, 108, 109, 110, 112, and 113 discharge into an internal discharge canal that then discharges into a waste heat treatment facility (3 lagoons) and then discharges to Lake Anna via Outfall 001. The huge quantity of water in the internal discharge canal (about 2000 MGD) provides a very significant assimilative ability for small discharges from these internal outfalls. Also, as per the memo from Fred Holt, OWRM, dated May 3, 1990 (Steam/Electric Permits), the technology limits for pH need only be met at the point of final discharge. Since pH for all these internal outfalls are based upon technology limit and the violation of water quality standard is not expected, the pH monitoring point for these internal outfalls is redefined to the cooling water discharge canal.

Outfall 109
Hot Well Drain Unit 1

Source: This intermittent outfall was previously approved to represent Outfall 110 (Hot Well Drain Unit #2), relatively high-purity condensate water, with small concentrations of corrosion chemicals. The drains are normally used once per 18 months, on alternating schedules, during maintenance shutdowns of the respective units. To obtain a representative sample, this must be sampled during use (maintenance shutdown).

Source Breakdown	Flow Frequency	Flow Rate/Volume
Hot Well Drains Unit 1	One day per outage at one month per every 18 months.	0.121MGD (Long Term Average) 0.25 MGD (Maximum Daily) Duration (in days): 1

Treatment: None.
Sampling Point: Hotwell drain pipe valve, turbine building basement.
Discharges To: Discharge Canal
Discharge Volume: 0.121 MGD (Average for 2002-2006).

Effluent Screening:
- Data from Form 2C and 2002-2006 DMRs have been reviewed and determined to be suitable for evaluation.
- There have been no exceedances of the established limitations. Data reported in Form 2C was analyzed and no pollutants were found to be above the water quality criteria.

Effluent Limitations:
-This internal outfall is considered as "low volume waste sources" under the Steam Electric Power Generating guidelines.
-The effluent limitations for this outfall are based on Federal Effluent Guidelines and are the same as in the previous permit.

Effluent Limitations/Monitoring Requirements: Outfall 109

Average Flow is 0.121 MGD.
Effective Dates: During the period beginning with the permit's effective date and lasting until the expiration date, the permittee is authorized to discharge from Outfall 109 (Hot Well Drains Unit 1).

PARAMETER	BASIS FOR LIMITS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
		Monthly Average	Daily Maximum	Minimum	Maximum	Frequency	Sample Type
Flow (MGD)	N/A	NL	N/A	N/A	NL	1/Y	Estimate
pH	1	N/A	N/A	6.0 S.U.	9.0 S.U.	1/Y	Grab
TSS	1	30 mg/L	100 mg/L	N/A	N/A	1/Y	Grab
Oil and Grease	1	15 mg/L	20 mg/L	N/A	N/A	1/Y	Grab

The basis for the limitations codes are:
1. Federal Effluent Requirements
2. Best Professional Judgment
3. Water Quality Standards

MGD = Million gallons per day
N/A = Not applicable
NL = No limit; monitor and report
S.U. = Standard units
1/Y = Once every year

-For annual reporting, DMR shall be submitted no later than the 10th day of January following the monitoring period.

Special Conditions Specific to Outfall 109:
pH Monitoring for Internal Outfalls.
The internal outfalls 103, 104, 105, 108, 109, 110, 112, and 113 discharge into an internal discharge canal that then discharges into a waste heat treatment facility (3 lagoons) and then discharges to Lake Anna via Outfall 001. The huge quantity of water in the internal discharge canal (about 2000 MGD) provides a very significant assimilative ability for small discharges from these internal outfalls. Also, as per the memo from Fred Holt, OWRM, dated May 3, 1990 (Steam/Electric Permits), the technology limits for pH need only be met at the point of final discharge. Since pH for all these internal outfalls are based upon technology limit and the violation of water quality standard is not expected, the pH monitoring point for these internal outfalls is redefined to the cooling water discharge canal.

Outfall 110

Hot Well Drain Unit 2

Source: Outfall 110 is substantially identical to Outfall 109 and Outfall 109 data will be submitted to represent Outfall 110.

Source Breakdown	Flow Frequency	Flow Rate/Volume
Hot Well Drains Unit 2	One day per outage at one month per every 18 months.	0.121 MGD (Long Term Average) 0.25 MGD (Maximum Daily) Duration (in days): 1

Treatment: None.

Sampling Point: Hotwell drain pipe valve, turbine building basement.

Discharges To: Discharge Canal

- Effluent limits are the same as Outfall 109.
- **See Outfall 109 for details.**

Effluent Limitations/Monitoring Requirements: Outfall 110

Average Flow is 0.121 MGD.
Effective Dates: During the period beginning with the permit's effective date and lasting until the expiration date, the permittee is authorized to discharge from Outfall 110 (Hot Well Drains Unit 2).

PARAMETER	BASIS FOR LIMITS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
		Monthly Average	Daily Maximum	Minimum	Maximum	Frequency	Sample Type
Flow (MGD)	N/A	NL	N/A	N/A	NL	1/Y	Estimate
pH	1	N/A	N/A	6.0 S.U.	9.0 S.U.	1/Y	Grab
TSS	1	30 mg/L	100 mg/L	N/A	N/A	1/Y	Grab
Oil and Grease	1	15 mg/L	20 mg/L	N/A	N/A	1/Y	Grab

The basis for the limitations codes are:
1. Federal Effluent Requirements
2. Best Professional Judgment
3. Water Quality Standards

MGD = Million gallons per day
N/A = Not applicable
NL = No limit; monitor and report
S.U. = Standard units
1/Y = Once every year

-For annual reporting, DMR shall be submitted no later than the 10th day of January following the monitoring period.

Special Conditions Specific to Outfall 110:

pH Monitoring for Internal Outfalls.

The internal outfalls 103, 104, 105, 108, 109, 110, 112, and 113 discharge into an internal discharge canal that then discharges into a waste heat treatment facility (3 lagoons) and then discharges to Lake Anna via Outfall 001. The huge quantity of water in the internal discharge canal (about 2000 MGD) provides a very significant assimilative ability for small discharges from these internal outfalls. Also, as per the memo from Fred Holt, OWRM, dated May 3, 1990 (Steam/Electric Permits), the technology limits for pH need only be met at the point of final discharge. Since pH for all these internal outfalls are based upon technology limit and the violation of water quality standard is not expected, the pH monitoring point for these internal outfalls is redefined to the cooling water discharge canal.

Outfall 111

Main Sewage Treatment Plant

Source: All domestic sewage is routed to the sewage treatment plant. The plant is equipped with flow equalization basins, each with a capacity of 18,700 gals. During normal operation, only one side is used but during periods of high demand (outages) both sides are used. Normally discharge is 0.004-0.01 MGD. It can increase to 0.025 MGD during refueling outages, once or twice per year.

Treatment: Extended aeration secondary effluent chlorination in chlorine contact tank.

Sampling Point: At the weir.

Discharges To: Discharge Canal

Discharge Volume: 0.03 MGD (Design Flow).

Effluent Screening:

- There have been no exceedances of the established limitations.

Effluent Limitations:

- The discharge is to the cooling water discharge canal.
- Water quality standards violations from this discharge are not anticipated as this outfall discharges to the cooling discharge canal with an average flow of 2100 MGD.

Effluent Limitations/Monitoring Requirements: Outfall 111

Average Flow is 0.03 MGD.

Effective Dates: During the period beginning with the permit's effective date and lasting until the expiration date, the permittee is authorized to discharge from Outfall 111 (Main Sewage Treatment Plant).

PARAMETER	BASIS FOR LIMITS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
		Monthly Average	Weekly Average	Minimum	Maximum	Frequency	Sample Type
Flow (MGD)	3	NL	N/A	N/A	NL	1/D	Estimate
pH	1	N/A	N/A	6.0 S.U.	9.0 S.U.	1/M	Grab
BOD_5	1,2	30 mg/L 3.4 kg/day	45 mg/L 5.1 kg/day	N/A	N/A	1/6M	Grab
TSS	1	30 mg/L 3.4 kg/day	45 mg/L 5.1 kg/day	N/A	N/A	1/3M	Grab
TRC*	2	2.0 mg/L	2.4 mg/L	N/A	N/A	1/D	Grab
E. coli**	2	126 N/cml	N/A	N/A	N/A	1/W**	Grab**

The basis for the limitations codes are:

1. Federal Effluent Requirements
2. Best Professional Judgment
3. Water Quality Standards

MGD = Million gallons per day

N/A = Not applicable

NL = No limit; monitor and report

S.U. = Standard units

* TRC monitoring is required only if chlorination is used in the wastewater treatment process.

** E. coli monitoring is required only if approved alternative disinfection is used in lieu of chlorination.

1/D = Once every day

1/M = Once every month

1/6M = Once every 6 months

1/3M = Once every 3 months

1/W = Once every week

Special Conditions Specific to Outfall 111:

95% Capacity Reopener. Flow loading requirements, applicable to all sewage treatment plants, per VPDES Permit Manual and the VPDES Permit Regulation, 9 VAC 25-31-200.B.4.

Indirect Dischargers requirements. Applicable to all POTWs and PVTOWs, per the VPDES Permit Regulation, 9 VAC 25-31-200.B.

CTC, CTO and O&M requirements. Applicable to all sewage treatment plants, per Code of Virginia Section 62.1-44.19; VPDES Permit Manual, and the Virginia Sewerage Regulations Sections 2.10 and 12.02.

Special Conditions Specific to Outfall 111 (Continued):

Sludge Reopener Clause. Required by VPDES Permit Regulation, 9 VAC 25-31-220.C.4. for all permits issued to treatment works treating domestic sewage and VPDES Permit Manual.

Sludge Management Plan. Requirement applicable to all sewage treatment plants, per OWPS Guidance Memo No.97-004 (5/27/97) and the VPDES Permit Regulation, 9 VAC 25-31-440.A.

Reliability Class. Required by Sewerage Regulation, 9 VAC 25-60-20 and 40 for all STPs.

Outfall 112

Steam Generator Blowdown Unit 1

Source: This outfall was previously approved to represent Outfall 113 (Steam Generator Blowdown Unit 2) and continuously discharges relatively high-purity condensate water from a closed system with small concentrations of corrosion chemicals while the unit is operating. Discharge is shut off once every 18 months for one month for maintenance.

Treatment: None.

Sampling Point: Unit 1 sample sink, turbine building basement.

Discharges To: Discharge Canal

Discharge Volume: 0.192 MGD (Average for 2002-2006).

Effluent Screening:

- Effluent data from Form 2C and 2002-2006 DMRs have been reviewed and determined to be suitable for evaluation.
- There have been no exceedances of the established limitations. Data reported in Form 2C was analyzed and total Copper as found to be above the water quality criteria.

Pollutants of concern:

- Total Suspended Solids (TSS): An evaluation of the 2002–2006 DMR effluent data shows TSS to be below the limit.
- Oil and Grease (O&G): An evaluation of the 2002–2006 DMR effluent data shows O&G to be below the limit.
- Total Copper: Form 2C showed total Copper was 7.0 ug/L.

Effluent Limitations:

-This internal outfall is considered as "low volume waste sources" under the Steam Electric Generating guidelines. The effluent limitations for this outfall are based on the Federal Effluent Guidelines and are the same as in the previous permit.

Effluent Limitations/Monitoring Requirements: Outfall 112

Average Flow is 0.192 MGD.

Effective Dates: During the period beginning with the permit's effective date and lasting until the expiration date, the permittee is authorized to discharge from Outfall 112 (Steam Generator Blowdown Unit 1).

PARAMETER	BASIS FOR LIMITS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
		Monthly Average	Daily Maximum	Minimum	Maximum	Frequency	Sample Type
Flow (MGD)	N/A	NL	N/A	N/A	NL	1/Y	Estimate
pH	1	N/A	N/A	6.0 S.U.	9.0 S.U.	1/Y	Grab
TSS	1	30 mg/L	100 mg/L	N/A	N/A	1/Y	Grab
Oil and Grease	1	15 mg/L	20 mg/L	N/A	N/A	1/Y	Grab

The basis for the limitations codes are:

1. Federal Effluent Requirements
2. Best Professional Judgment
3. Water Quality Standards

MGD = Million gallons per day
N/A = Not applicable
NL = No limit; monitor and report
S.U. = Standard units
1/Y = Once every year

-For annual reporting, DMR shall be submitted no later than the 10th day of January following the monitoring period.

Special Conditions Specific to Outfall 112:

pH Monitoring for Internal Outfalls.

The internal outfalls 103, 104, 105, 108, 109, 110, 112, and 113 discharge into an internal discharge canal that then discharges into a waste heat treatment facility (3 lagoons) and then discharges to Lake Anna via Outfall 001. The huge quantity of water in the internal discharge canal (about 2000 MGD) provides a very significant assimilative ability for small discharges from these internal outfalls. Also, as per the memo from Fred Holt, OWRM, dated May 3, 1990 (Steam/Electric Permits), the technology limits for pH need only be met at the point of final discharge. Since pH for all these internal outfalls are based upon technology limit and the violation of water quality standard is not expected, the pH monitoring point for these internal outfalls is redefined to the cooling water discharge canal.

Outfall 113

Steam Generator Blowdown Unit 2

Source: Outfall 113 is substantially identical to Outfall 112 and Outfall 112 data will be submitted to represent Outfall 113.

Treatment: None.

Sampling Point: Unit 2 sample sink, turbine building basement.

Discharges To: Discharge Canal

- Effluent limits are the same as Outfall 112.
- **See Outfall 112 for details.**

Effluent Limitations/Monitoring Requirements: Outfall 113

Average Flow is 0.163 MGD.
Effective Dates: During the period beginning with the permit's effective date and lasting until the expiration date, the permittee is authorized to discharge from Outfall 113 (Steam Generator Blowdown Unit 2).

PARAMETER	BASIS FOR LIMITS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
		Monthly Average	Daily Maximum	Minimum	Maximum	Frequency	Sample Type
Flow (MGD)	N/A	NL	N/A	N/A	NL	1/Y	Estimate
pH	1	N/A	N/A	6.0 S.U.	9.0 S.U.	1/Y	Grab
TSS	1	30 mg/L	100 mg/L	N/A	N/A	1/Y	Grab
Oil and Grease	1	15 mg/L	20 mg/L	N/A	N/A	1/Y	Grab

The basis for the limitations codes are:

1. Federal Effluent Requirements
2. Best Professional Judgment
3. Water Quality Standards

MGD = Million gallons per day
N/A = Not applicable
NL = No limit; monitor and report
S.U. = Standard units
1/Y = Once every year

-For annual reporting, DMR shall be submitted no later than the 10th day of January following the monitoring period.

Special Conditions Specific to Outfall 113:

pH Monitoring for Internal Outfalls.

Internal outfalls 103, 104, 105, 108, 109, 110, 112, and 113 discharge into an internal discharge canal that then discharges into a waste heat treatment facility (3 lagoons) and then discharges to Lake Anna via Outfall 001. The huge quantity of water in the internal discharge canal (about 2000 MGD) provides a very significant assimilative ability for small discharges from these internal outfalls. Also, as per the memo from Fred Holt, OWRM, dated May 3, 1990 (Steam/Electric Permits), the technology limits for pH need only be met at the point of final discharge. Since pH for all these internal outfalls are based upon technology limit and the violation of water quality standard is not expected, the pH monitoring point for these internal outfalls is redefined to the cooling water discharge canal.

Outfall 114

Service Water Pipe Vault Drain

Source: This outfall is used when leakage accumulates in the Pipe Vault adjacent to the Service Water Reservoir. There is a manually operated sump pump inside the vault. Discharge usually consists of rainwater as service water, industrial discharge, has not occurred in the past 20 years. Outfall 108 is substantially identical to Outfalls 114 and Outfall 108 data will be submitted to represent Outfall 114.

Treatment: None.

Sampling Point: End of pipe on walkway.

Discharges To: Discharge Canal

- Effluent limits are the same as Outfall 108.
- **See Outfall 108 for details.**

Effluent Limitations/Monitoring Requirements: Outfall 114

Average Flow is 0.0 MGD.

Effective Dates: During the period beginning with the permit's effective date and lasting until the expiration date, the permittee is authorized to discharge from Outfall 114 (Service Water Pipe Vault Drain).

PARAMETER	BASIS FOR LIMITS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
		Monthly Average	Daily Maximum	Minimum	Maximum	Frequency	Sample Type
Flow (MGD)	N/A	NL	N/A	N/A	NL	1/Y	Estimate

The basis for the limitations codes are:

1. Federal Effluent Requirements
2. Best Professional Judgment
3. Water Quality Standards

MGD = Million gallons per day
N/A = Not applicable
NL = No limit; monitor and report
S.U. = Standard units
1/Y = Once every year

-For annual reporting, DMR shall be submitted no later than the 10th day of January following the monitoring period.

Special Conditions Specific to Outfall 114: None.

Outfall 115

Service Water System Blowdown

Source: This outfall is for emergency use only, to blowdown the service water reservoir when other pathways are not available for whatever reasons. Use has not occurred in the past 20 years. Outfall 108 is substantially identical to Outfall 115 and Outfall 108 data will be submitted to represent Outfall 115.

Treatment: None.

Sampling Point: End of concrete drainage ditch adjacent to the Warehouse 5 fire pump house, midway down the discharge canal.

Discharges To: Discharge Canal

- Effluent limits are the same as Outfall 108.
- **See Outfall 108 for details.**

Effluent Limitations/Monitoring Requirements: Outfall 115

Average Flow is 0.0 MGD.
Effective Dates: During the period beginning with the permit's effective date and lasting until the expiration date, the permittee is authorized to discharge from Outfall 115 (Service Water System Blowdown).

PARAMETER	BASIS FOR LIMITS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
		Monthly Average	Daily Maximum	Minimum	Maximum	Frequency	Sample Type
Flow (MGD)	N/A	NL	N/A	N/A	NL	1/Y	Estimate

The basis for the limitations codes are:

1. Federal Effluent Requirements
2. Best Professional Judgment
3. Water Quality Standards

MGD = Million gallons per day.
N/A = Not applicable.
NL = No limit; monitor and report.
S.U. = Standard units.
1/Y = Once every year.

-For annual reporting, DMR shall be submitted no later than the 10th day of January following the monitoring period.

Special Conditions Specific to Outfall 115: None.